AMERICAN MUSEUM NOVITATES

Number 637 — Published by THE AMERICAN MUSEUM OF NATURAL HISTORY NEW YORK CITY — June 16, 1933

59.54, 4 (73)

DIAGNOSES OF NEW AMERICAN SPIDERS

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In the course of arrangement of various families of spiders in the collection of The American Museum of Natural History, the following species new to science have been discovered. An agelenid from a cave in Indiana is regarded as representing a new generic type, the nearest American relatives of which are species of the genera *Cybaeus* and *Cybaeina*. Altogether, fourteen species are diagnosed as new, all the types of which are deposited in the collection of the American Museum.

Ebo pepinensis, new species

MALE.—Total length, 2.33 mm. Carapace, 1.03 mm. long; 1.13 mm. wide; 0.46 mm. in front. Abdomen, 1.33 mm. long; 1.06 mm. wide.

Cephalothorax slightly broader than long, broadest just behind the third coxae, moderately high, rather abruptly constricted and truncated in front, provided with few hairs or spines. Integument of the carapace light brown, the sides irregularly marmorate in black, a dorsal band but slightly indicated above, the eye tubercles and the region of the indistinct cephalic sutures marked with white. Sternum, labium, endites, and legs yellow, rather thickly irrorate in brown. Abdomen gray to black, showing a faint basal maculation that runs back half the length of the dorsum, the venter paler.

First row of eyes recurved, the medians much larger (4/3), separated by a diameter, a third as far from the laterals. Second row of eyes broader (18/13), slightly recurved, the medians smaller, separated from each other by nearly twice their distance from the laterals. Posterior lateral eyes somewhat smaller than the anterior medians but larger than the anterior laterals. Median ocular quadrangle broader behind (10/9) but about as long as broad. Clypeus equal in height to a little more than the diameter of an anterior median eye.

Legs 2143, usually unarmed but often with two pairs of spines beneath the tibiae.

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	1.43	.60	1.23	1.06	.76	5.08 mm.
II	2.36	.83	2.26	1.93	1.26	8.64 mm.
III	1.30	.46	1.10	.83	.60	4.29 mm.
IV	1.46	.46	1.16	1.00	.60	4.68 mm.
Palp	.43	.23	.26		.30	1.22 mm.

MALE PALPUS.—Femur nearly equal to the length of the patella and tibia taken together, less than half the length of the carapace. The whole palpus a little longer than the carapace. Tarsus little expanded, much less so than in *Ebo latithorax* Keyserling, the tibial joint equal to it in length (considerably less in *latithorax*). Tibial apophysis short. Bulbal parts filling two-thirds or less of the tarsal length.

TYPE LOCALITY.—Male holotype, female allotype, and male and female paratypes from Wacouta Beach, Lake Pepin, Minnesota, May 15, 1932 (Gertsch, collector). These interesting little long-legged spiders were common on the sand at the water's edge and in the driftwood zones farther back, running freely about and apparently feeding on tiny flies. None of the females are mature.

Of the three species formerly placed in *Ebo*, only the genotype remains. A new generic name has been proposed for the group that includes *Ebo mexicana* Banks, while the generic affiliation of *Ebo oblongus* Simon is doubtful. *Ebo pepinensis*, new species, may be identical with spiders of this genus, found in the Great Basin region and on the Pacific Coast, but as there are only females in the collection, accurate determination is not possible at the present time.

Micaria aurata (Hentz)

Figures 4 and 6

Herpyllus auratus HENTZ, 1847, Journal Boston Soc. Nat. Hist., V, p. 459, Pl. XXIV, fig. 15.

This brightly colored species is common throughout the region east of the Rocky Mountains. Females from Medicine Hat, Alberta, June, 1930 (Carr, collector), though differing somewhat in color, are in structural characteristics identical with the eastern form. The epigynum of a single female from City Creek, Salt Lake City, Utah, August 29, 1931 (Gertsch, collector), differs in minor details, as illustrated in figure 6, but in the absence of males it seems best to refer to it *aurata*.

Micaria deserticola, new species

Figures 7 and 8

MALE.—Total length, 3.00 mm. Carapace, 1.33 mm. long; 0.80 mm. wide: Abdomen, 1.60 mm. long; 0.68 mm. wide.

Cephalothorax with a few long hairs on the clypeal margin and in the ocular region, the pars thoracica with very few iridescent silvery scales. Carapace almost uniform dark brown, with few darker streaks or contrasting markings. Sternum, labium, endites, and legs much lighter, the femora slightly darkened, provided with an even, though sparse, coating of hairs and devoid of heavy spines. Abdomen black, above apparently once covered with iridescent silvery scales, the venter lighter, the sides with remnants of a basal and a medial white band which do not extend to the dorsum. Spinnerets light.

Carapace weakly rounded on the sides, two-thirds as broad at the front as between the first and second coxae, the greatest cephalothoracic width, highest at the same point, the convexity moderate. Abdomen with the sides subparallel, constricted in the middle, little wider at the caudal end than medially, the spinnerets long and projecting.

Eye rows separated by about one and one-half diameters of a lateral eye. Eyes of the first row procurved, the medians larger and separated from each other by about two-thirds of a diameter, subcontiguous with the laterals. Eyes of the posterior row very slightly procurved, subequal, the medians little more than a diameter apart, less than that distance from the laterals. Median ocular quadrangle about as long as broad, the anterior medians larger. Clypeus as high as the diameter of an anterior median eye. Lower margin of the furrow of the chelicera armed with a single small tooth.

Palpus resembling that of *Micaria aurata* (Hentz), the proximal tibial margin with a heavy spur that is covered with hairs and weak spines, the bulb with a colorless appendage on the retrolateral margin, the embolus a short spine. Tibia about as long as broad. Other details as figured.

FEMALE.—Total length, 3.30 mm. Carapace, 1.30 mm. long; 0.80 mm. wide. Abdomen, 1.93 mm. long; 1.16 mm. wide.

Agreeing well with the male in general structure and color but with a submedian white transverse band on the abdomen. Epigynum as figured.

TYPE LOCALITY.—Male holotype and female allotype from Scottsdale, Arizona, December 24, 1902 (Britcher, collector).

The presence of a basal tibial spur rather than a distal one will separate this species from *Micaria coloradensis* and *perfecta*, which Banks described as coming from Colorado. It is quite different in color from *Micaria aurata* and has the tibial apophysis shorter and nearer the base of the joint than in that species.

Micaria utahna, new species

Figure 1

MALE.—Total length, 3.73 mm. Carapace, 1.53 mm. long; 1.03 mm. wide. Abdomen, 2.20 mm. long; 1.00 mm. wide.

Cephalothorax with a few weak spines on the clypeal margin and a sparse covering of iridescent silvery scales. Carapace uniform dark brown, somewhat streaked with black. Sternum, labium, endites, and basal leg joints lighter brown. Femora of legs darker, the distal joints light yellowish-brown. Legs with a sparse covering of hairs and a few stouter spines, especially on the last two pairs. Abdomen mostly black, with a few white scales, and with indistinct indications of transverse basal and submedian white bands, the venter lighter and clothed with iridescent light scales. Spinnerets dark.

Carapace two-thirds as wide at the front as at the widest point, between the second and third coxae, nearly equal in height throughout. Abdomen unconstricted, the sides weakly rounded, the spinnerets much shorter than in *Micaria deserticola.*

Eye rows about of equal width, the first procurved, the medians separated from each other by about two-thirds of a diameter, subcontiguous with the equal laterals. Posterior row of eyes slightly procurved, the medians scarcely a diameter from the equal laterals, about two diameters from each other. Side eyes about a diameter apart. Median ocular quadrangle about as broad as long, the eyes subequal. Clypeus equal in height to the diameter of an anterior median eye. Lower margin of the furrow of the chelicera with a single weak tooth.

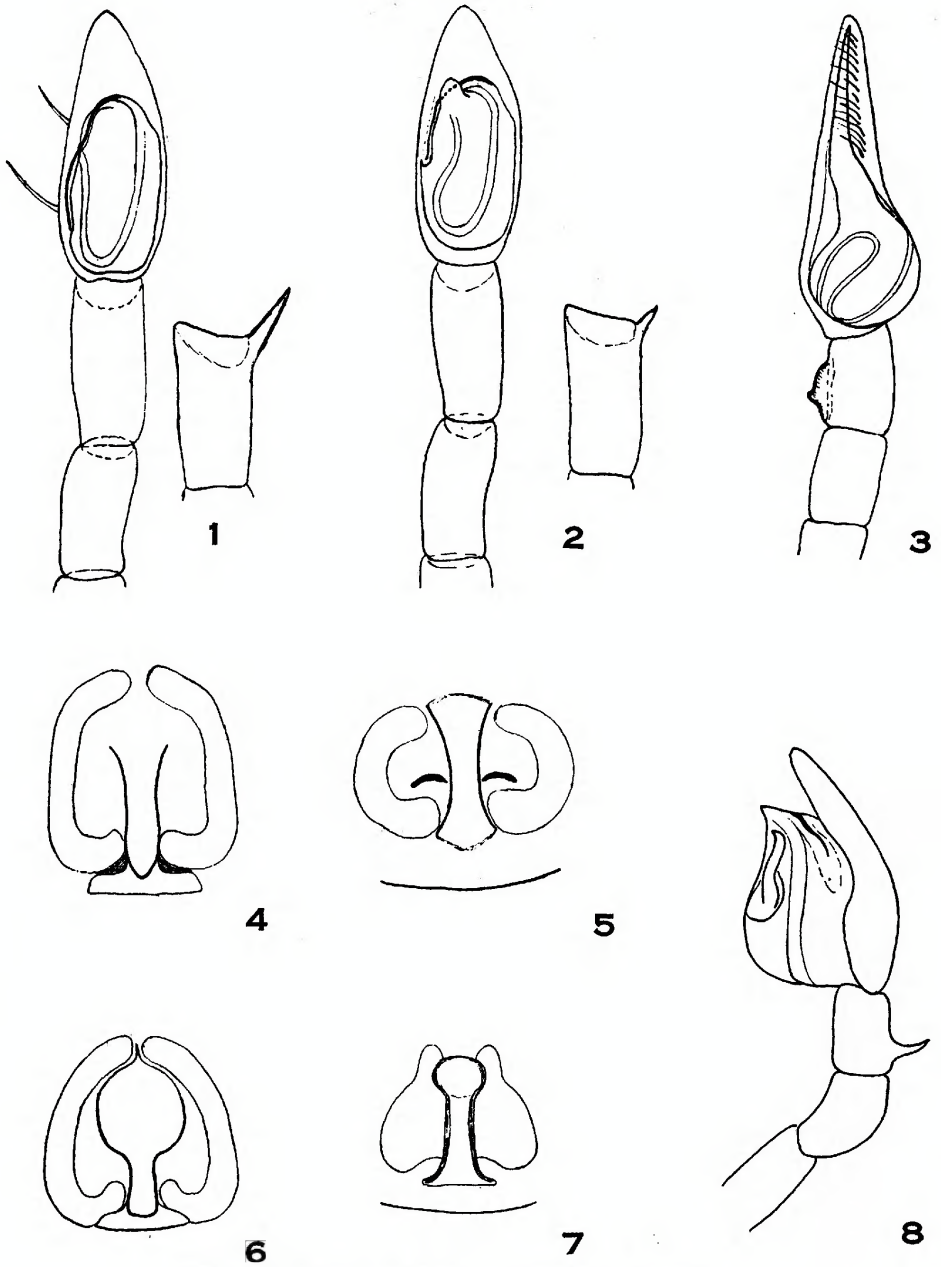


Fig. 1. *Micaria utahna*, new species, palpus.
Fig. 2. *Micaria foxi*, new species, palpus.
Fig. 3. *Castaneira nanella*, new species, palpus.
Fig. 4. *Micaria aurata* (Hentz), epigynum.
Fig. 5. *Micaria altana*, new species, epigynum.
Fig. 6. *Micaria aurata* (Hentz), variety, epigynum.
Fig. 7. *Micaria deserticola*, new species, epigynum.
Fig. 8. *Micaria deserticola*, new species, palpus.

Patella and tibia of the palpus together longer than the tarsus. Tibia twice as long as wide, with a distal retrolateral sharp spur that is nearly as long as the width of the joint. Tarsus twice as long as broad, the bulbal parts occupying two-thirds the length. Bulb without the hooklike appendage present in most of the species of the genus, the embolus very long, originating at the distal end and curving around the outer margin nearly to the base of the bulb.

TYPE LOCALITY.—Male holotype from City Creek Canyon, Salt Lake City, Utah, August, 1931 (Gertsch, collector).

This species differs from *Micaria coloradensis* Banks in having the metatarsi light, in the much longer embolus, and particularly in the absence of the hooklike appendage on the outer side of the bulb. It is more closely related to *Micaria foxi*, new species, from which it differs chiefly in having a much shorter tibial apophysis.

Micaria foxi, new species

Figure 2

MALE.—Total length, 3.00 mm. Carapace, 1.33 mm. long; 0.90 mm. wide. Abdomen, 1.66 mm. long; 0.80 mm. wide.

Carapace dark brown, with a few medial darker streaks, the eye margin darker and with a few black hairs. Sternum, labium, endites, and legs much lighter in color, the distal leg joints somewhat lightened. Legs sparsely clothed with hairs, and the tibiae of all the legs with weak spines beneath. Abdomen black above and thickly covered with iridescent purple scales, without a trace of transverse bands or spots of any kind, the venter as dark as the dorsum. Spinnerets black.

Carapace nearly equal in height throughout its length, about two-thirds as broad in front as between the third and fourth coxae. Abdomen with the sides subparallel, very weakly constricted at the middle, the spinnerets short.

Eyes of the first row procurved, subequal, the medians separated by scarcely two-thirds of a diameter from each other, nearly touching the laterals. Posterior row of eyes slightly procurved, the medians scarcely two diameters apart, less than a diameter from the equal laterals. Median ocular quadrangle scarcely as broad as long, as wide in front as behind, the anterior eyes slightly larger. Clypeus equal in height to the diameter of an anterior median eye. Lower margin of the furrow of the chelicera with a single small tooth.

Patella and tibia of the palpus together longer than the tarsus. Tibia twice as long as broad, provided with a very short, weak distal retrolateral spur not more than one-fourth the width of the joint. Tarsus twice as long as broad, the bulb of the palpus occupying two-thirds of the length. Bulb lacking the outer hooklike appendage, the embolus originating distally and curving around the outer margin for half the bulbal length, supported distally by a small lobate conductor.

TYPE LOCALITY.—Male holotype from Richfield, Utah, July 4, 1930 (D. E. Fox, collector).

This species or *Micaria utahna* may be the male of *Micaria formicoides* Chamberlin and Woodbury, but as the last name has already been used in this genus, it is unavailable as a specific name.

Micaria altana, new species

Figure 5

FEMALE.—Total length, 5.00 mm. Carapace, 1.93 mm. long; 1.20 mm. wide. Abdomen, 3.00 mm. long; 1.66 mm. wide.

Cephalothorax little more than half as wide at the front as at the widest point, between the second and third coxae, nearly equal in height throughout its length and only slightly sloping to the ocular area. Carapace very dark brown, provided with a few long hairs in the clypeal region and clothed with a few appressed hairs and lighter scales. Sternum, labium, and endites brown, with many long hairs. Legs lighter brown, lightened somewhat distally, the femora darker, all the members with appressed black hairs and a few lighter hairs and scales on the upper surface. All the legs with spines beneath the tibiae, three pairs beneath the two posterior pairs but only two pairs beneath the anteriors. Abdomen nearly twice as long as broad, weakly rounded on the sides, covered with iridescent black scales above except for the basal and median transverse white bands. Venter lighter except distally, with shiny scales, the spinnerets gray.

Anterior row of eyes slightly procurved, the medians separated by a diameter, slightly larger and subcontiguous with the laterals. Posterior row of eyes slightly procurved, the medians about two diameters apart and scarcely a diameter from the larger laterals. Median ocular quadrangle slightly longer than broad, not narrower in front, the anterior medians slightly larger. Clypeus equal in height to one and one-half times the diameter of an anterior lateral eye. Lower margin of the furrow of the chelicera with a single small tooth.

Epigynum as figured.

TYPE LOCALITY.—Female holotype from Seba, Alberta, July, 1930. Female paratypes from Bloomington, Idaho, August 19, 1931 (Gertsch, collector).

Castaneira nanella, new species

Figure 3

MALE.—Total length, 4.69 mm. Carapace, 1.76 mm. long; 1.06 mm. wide. Abdomen, 2.93 mm. long; 1.10 mm. wide.

Carapace dark yellowish-brown, medially a little lighter. Sternum, labium, and endites light brown, dark-margined. Femur of first leg dark brown except distally, the other joints yellow. Femora of the other legs with lateral brown bands, the third and fourth metatarsi also with side streaks, otherwise yellow. Palpus with brown side bands. Abdomen black, basally with four transverse orange-brown broken streaks, the last much reduced. Venter of abdomen light brown, laterally with a black and a white bar, caudally black.

Carapace much longer than broad, the pedicel joining the abdomen clearly distinct from above and roughened as in antlike spiders. Abdomen narrow basally, gradually widened to a point near the posterior end and then rounded caudally.

Eyes of the first row slightly procurved, the medians a little smaller, separated by scarcely two-thirds of a diameter, almost touching the laterals. Posterior eyes subequal in size, slightly procurved, the medians separated by a diameter, half as far from the laterals. Median ocular quadrangle as long as broad, somewhat narrowed

in front, the posterior eyes larger, about equal to the anterior laterals. Clypeus about as high as the diameter of an anterior median eye. Lower margin of the furrow of the chelicera with two small teeth, the upper also with two, one of which is larger.

The first tibia with 1–2–2 spines beneath, no distals present.

TYPE LOCALITY.—Male holotype from City Creek Canyon, Salt Lake City, Utah, August, 1931 (Gertsch, collector).

In many respects this species is intermediate in generic position between *Castaneira* and *Mazax*. In the latter genus the pedicel is very conspicuous, distinctly rugose, and more or less intimately jointed to a large oval, chitinous dorsal sclerite, which is often armed with heavy spines and overhangs the base of the abdomen. The posterior eyes are practically straight and on the average are somewhat larger than in *Castaneira*. The pedicel in *C. nanella* differs only in degree from that of species of *Mazax*, and the abdominal armature is completely lacking, but there is distinct agreement in the eye arrangement, in the teeth on the furrows of the chelicerae, and in other points. I place it in *Castaneira* mainly on the basis of the palpus, which is obviously close to other species in the genus. As this new form is described from a single male it is at present impossible to connect it with *Castaneira lineata* Emerton, which comes from Massachusetts and was described from a female.

Clubiona texana, new species

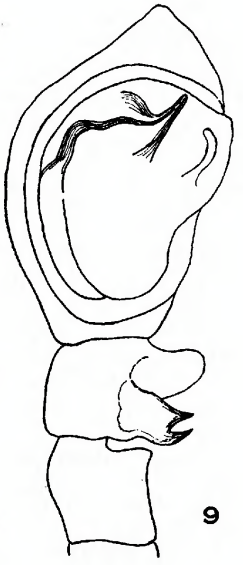
Figure 16

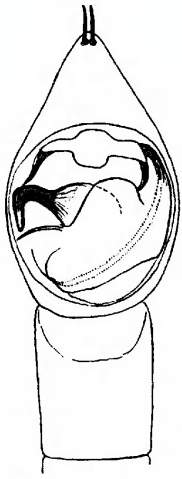
FEMALE.—Total length, 11.66 mm. Carapace, 3.86 mm. long; 2.63 mm. wide. Abdomen, 7.80 mm. long; 4.00 mm. wide.

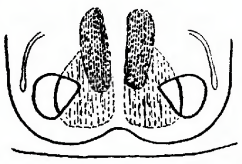
Cephalothorax nearly three-fourths as wide at the front as at the widest and highest point, between the second and third coxae, the sides weakly rounded, provided with a sparse covering of black hairs. Carapace light brown. Sternum light brown, the labium and endites somewhat darker. Legs concolorous with the carapace basally but, because of the thick clothing of hairs on the distal joints, appearing darker there. Abdomen gray basally, with darker chevrons near the spinnerets, the venter pale.

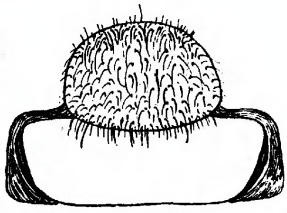
Eyes of the first row straight, subequal in size, equidistantly spaced one-third of a diameter apart. Posterior row of eyes slightly procurved, the medians slightly farther apart than their distance from the equal laterals. Median ocular quadrangle broader than long (20/17), narrower in front by the same ratio, the anterior medians larger in size. Clypeus very narrow, about one-third as wide as the diameter of an anterior median eye. Lower margin of the furrow of the chelicerae with four teeth, of which the two middle ones are larger, the upper margin with five, one larger than the others.

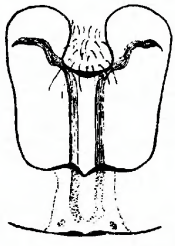
Tibiae of legs I, II, and IV with a basal and median pair of long spines beneath, tibia III with single basal, median and distal spines beneath. The first two metatarsi with a single pair of basal spines, the last two with 2–2–2 spines beneath.











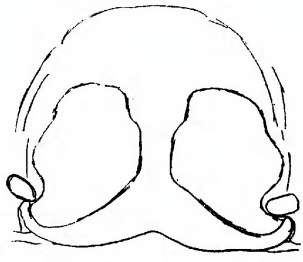


Fig. 9. *Agelena lutzi*, new species, palpus.
Fig. 10. *Clubiona intermontana*, new species, palpus.
Fig. 11. *Allocosa noctuabunda* Montgomery, Palpus.
Fig. 12. *Anyphaena schwarzi*, new species, epigynum.
Fig. 13. *Clubiona intermontana*, new species, tibia of palpus.
Fig. 14. *Anyphaenella immaculella*, new species, epigynum.
Fig. 15. *Auchicybaeus ovalis*, new species, epigynum.
Fig. 16. *Clubiona texana*, new species, epigynum.
Fig. 17. *Arctosa imperiosa*, new species, epigynum.

TYPE LOCALITY.—Female holotype from Brownsville, Texas, January 3–11, 1928 (Lutz, collector).

This large species is more closely related to species described from Mexico than any found within the United States. The details of the epigynum are sufficient to separate it from the *Clubionas* named by the Cambridges, of which species it more closely approximates *sericea*.

Clubiona intermontana, new species

Figures 10 and 13

MALE.—Total length, 4.40 mm. Carapace, 2.03 mm. long; 1.53 mm. wide. Abdomen, 2.46 mm. long; 1.33 mm. wide.

Cephalothorax with a sparse clothing of short, appressed, black hairs. Carapace light yellowish-brown, unmarked, the eyes ringed in black. Sternum and labium margined indistinctly in black, otherwise equivalent to the carapace. Legs concolorous with the carapace, the metatarsi and tarsi thickly scopulate beneath, the spines on the members conspicuous. Abdomen brown above, with numerous small, lighter spots provided at the pedicel with long black hairs. Spinnerets light yellowish-brown.

Legs 4213, the anterior tibiae with a basal and submedian pair of spines, the metatarsi with a single basal pair.

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	1.66	.83	1.50	1.10	.73	5.82 mm.
II	1.66	.83	1.56	1.10	.73	5.88 mm.
III	1.50	.66	1.13	1.26	.53	5.08 mm.
IV	2.00	.80	1.66	2.06	.66	7.18 mm.

The first row of eyes practically straight, narrower than the second, the medians somewhat smaller and separated from each other by about one-third their diameter, even nearer to the laterals. Second row of eyes very slightly recurved, the medians about equal in size to the laterals and subequidistantly spaced, a little over a diameter apart. Median ocular quadrangle broader than long (16/12), much narrower in front, the eyes about equal. Clypeus about one-third as high as the diameter of an anterior median eye. Lower margin of the furrow of the chelicera with two small teeth beneath.

TYPE LOCALITY.—Male holotype from Slough Creek, Yellowstone National Park, Wyoming, August, 1931 (W. E. Gertsch, collector).

This species can scarcely be confused with any other described from the United States. The palpus is suggestive of *Clubiona canadensis* but differs in the proportions of the tibial apophysis and in the details of the bulb. Viewed laterally, the tibia presents three well-defined retrolateral lobes, the middle one of which is much shorter or completely lacking in *canadensis*.

Anyphaenella immaculella, new species

Figure 14

FEMALE.—Total length, 3.83 mm. Carapace, 1.53 mm. long; 1.13 mm. wide. Abdomen, 2.40 mm. long; 1.53 mm. wide.

Cephalothorax and abdomen completely devoid of hairs or spines of any kind. Carapace immaculate, light yellow in color, the eyes ringed in black. Sternum with an indistinct scalloped black marginal band, light yellow. Labium, endites, coxae, and legs concolorous with the carapace, also immaculate, the legs distally scopulate. Abdomen whiter than the carapace, without markings of any kind.

Legs 1423, very slender, provided with long spines, with first two tibiae and metatarsi with a basal and median pair.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	2.16	.73	2.93	3.03	1.33	10.18 mm.
II	1.50	.50	1.56	1.50	.56	5.62 mm.
III	1.16	.43	.93	1.20	.36	4.08 mm.
IV	1.93	.53	1.80	1.83	.50	6.59 mm.

First row of eyes narrower than the second, straight, the medians much smaller, scarcely two-thirds of a diameter apart and about half as far from the laterals. Second row of eyes procurved, the eyes subequal, the medians nearly two diameters apart (3/5), scarcely more than a diameter from the laterals. Median ocular quadrangle much narrower in front, very slightly broader (11/10) than long, the posterior median eyes much larger, little larger than the anterior laterals. Clypeus equal in height to the diameter of an anterior median eye. Chelicerae with five small teeth on the lower margin.

Type Locality.—Female holotype and female paratype from Sabino Basin, Santa Catalina Mountains, Arizona, July 8–12, 1916 (Lutz, collector).

Only two other species of spiders definitely known to belong to this genus are found in the United States, and neither of these has so far been found west of the Rocky Mountains. *Anyphaenella immaculella* is closely related to *A. saltabunda* (Hentz), agreeing structurally in all details except in the comparative leg lengths and in epigynal characters. In *immaculella* the first metatarsus is twice as long as the carapace (1.53/3.03), while in the other species it is much shorter (1.66/2.33). Both agree in having the first tibia approximately equal to the metatarsus, by which character they may be separated from *A. alba* (Hentz).

Anyphaena schwarzi, new species

Figure 12

Female.—Total length, 4.10 mm. Carapace, 1.73 mm. long; 1.33 mm. wide. Abdomen, 2.33 mm. long; 1.33 mm. wide.

Cephalothorax about five-eighths as broad in front as at the widest and highest point, a line between the opposite third and fourth coxae, the sides weakly rounded. Carapace sparsely covered with short white hairs, the sides infuscated, leaving a broad median longitudinal light brown area. Sternum, labium, and endites light. Femora of legs infuscated, the distal joints light yellowish-brown in color, clothed with long black hairs and spines. Abdomen light gray, thickly and evenly marked and reticulated with black, the venter paler. Spinnerets light. Ventral furrow slightly nearer the genital furrow than the spinnerets.

Eyes of the first row straight, the medians separated by scarcely two-thirds of their diameter, nearly contiguous with the larger laterals. Second row of eyes straight, the medians separated a little more than their diameter, over half as far from the subequal laterals. Median ocular quadrangle slightly broader than long (13/11), narrowed in front, the posterior median eyes larger than the anteriors, slightly larger than the anterior laterals. Clypeus about two-thirds the diameter of an anterior median eye.

Legs furnished with conspicuous long spines, the first two tibiae with a basal and median pair, the third and fourth with three pairs, the last apical. The first metatarsi with a single basal spine, in this respect differing from all other Anyphaenas in the United States, the second with a basal pair. All femora with three long spines on the dorsal surface.

Epigynum resembling that of *Anyphaena laticeps* Bryant, but differing in the degree of separation of the openings, in their shape, and in the internal epigynal details.

TYPE LOCALITY.—Female holotype from Brownsville, Texas, January 3–11, 1928 (Schwarz, collector).

AUCHICYBAEUS, new genus

A genus of the agelenid subfamily Cybaeinae related to *Cybaeus*.

Carapace longer than wide (26/21), over half as broad in front as the greatest width (6/11), moderately high throughout, the median cephalothoracic suture a deeply impressed pit, the sutures defining the pars cephalica distinct but not very deep. Labium a little broader than long, scarcely half as high as the subparallel, robust endites. Chelicerae provided on the upper margin with three subequal separated teeth, the lower margin with four more closely approximated to each other. Eyes subequal, the first row recurved and the medians a little nearer each other than the laterals, the posterior row very slightly recurved, the medians somewhat nearer each other than the laterals. Clypeus scarcely as wide as the diameter of an anterior median eye. Abdomen oval, somewhat produced in front and slightly overlapping the carapace. Spinnerets subapical, approximated, the anteriors slightly separated, a distinct colulus between them, the last pair very short and apparently one-jointed. Legs 1243, the tibiae of the first pair with 2–2–1–1 spines beneath, an apical not present.

GENOTYPE.—*Auchicybaeus ovalis*, new species.

In *Cybaeus* the length of the femur never equals that of the carapace, but in this new genus the joint is half again as long. The large elevated abdomen of *Auchicybaeus* conspicuously overhangs the carapace as in many theridiids.

Auchicybaeus ovalis, new species

Figure 15

FEMALE.—Total length, 11.50 mm. Carapace, 4.90 mm. long; 4.00 mm. wide. Abdomen, 7.30 mm. long; 5.00 mm. wide.

Cephalothorax practically bare, provided with only a few inconspicuous fine black hairs. Carapace mostly dull yellow, the margins of the pars thoracica touched with black, the cephalothoracic striae shadowed in brown. Eye tubercles blackened. Sternum, labium, and endites brown, clothed sparsely with long black hairs. Legs yellow, evenly and rather thickly covered with long black hairs and numerous long spines on the basal joints, the metatarsi and tarsi heavily and evenly spinose, the patellae with broad distal brown rings, the tibiae with broad submedian and distal annulae. Abdomen very high basally, rather thickly clothed with black hairs, the integument dull yellow in color, basally with large gray lateral maculations followed by indistinct smaller gray chevrons that completely cover the caudal portion, the pattern and color very much resembling that of the species of *Cybaeus* and *Amaurobius*. Venter lighter, gray in front of the light brown spinnerets which are whitened distally.

First row of eyes very slightly narrower than the second row, rather strongly recurved, the laterals a little larger, the medians about half a diameter apart, two-thirds of a diameter from the laterals. Second row of eyes very slightly recurved, the eyes subequal, the medians half a diameter apart, about a diameter from the laterals. Median ocular quadrangle as broad as long, very slightly narrower in front. Clypeus about equal to the height of an anterior median eye.

Legs 1243, the anterior tibiae with 2–2–1–1 spines beneath.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	7.70	2.45	7.70	7.98	2.94	28.77 mm.
II	7.00	2.10	6.09	6.02	2.45	23.66 mm.
III	5.32	1.40	3.50	4.48	1.82	16.52 mm.
IV	7.00	1.89	5.04	5.74	1.82	21.49 mm.

Epigynum a broad transverse rectangular plate, in front of which is a large tubercle.

Type Locality.—Female holotype from Marengo Spring Cave, Crawford County, Indiana, October 20, 1911, taken in the "area of total darkness" by Arthur W. Henn.

It is quite improbable that this species is the same as Banks' *Tegenaria cavicola*, which was found in caves in Indiana and described from immature specimens. The eye relations and the short spinnerets are characters of such importance that it seems unlikely that Banks could have confused this species with the genus *Tegenaria*. A species of *Coras*, recently described from the southern states by Crosby and Bishop as a *Coelotes* (*C. plumarius*), could likewise scarcely belong here, although the epigynal structure is very similar.

Agelena lutzi, new species

Figure 9

Male.—Total length, 5.66 mm. Carapace, 2.93 mm. long; 2.33 mm. wide. Abdomen, 2.66 mm. long; 2.00 mm. wide.

The spider on which this name is based has been dried, with the result that the carapace is somewhat distorted. The carapace was provided with the median and

lateral longitudinal light bands as in other species of the genus, though in this specimen they are indistinct, the intervals between the bands being dark, a covering of appressed gray hair clothing the cephalothorax. Legs quite thickly provided with suberect hairs and longer spines, yellow in color, the femora with black annulae basally, medially, and distally. Sternum, labium, endites, and coxae light brown. Abdomen thickly covered with long black hairs and spines above, the venter gray, basally lighter. Last spinnerets half again as long as the first pair.

Anterior row of eyes procurved, subequal, the medians about a radius apart, one-third of a diameter from the laterals. Posterior row of eyes procurved, subequal, the medians two-thirds of a diameter apart, nearly as far from the laterals. Median ocular quadrangle slightly longer than broad, somewhat narrower in front. Clypeus equal to the diameter of an anterior lateral eye.

Chelicerae with two subequal teeth on the lower margin, the upper with four denticles, three of which are very small. Tibia I, II, and III with 2–2–2 spines beneath, IV with 1–1–2.

Tibia and patella of the palpus about equal to the femur in length. Tibia broader than long, provided with three processes, a ventral distal sharp spur half as long as the joint that rests on the cymbial margin, and two retrolateral chitinous projections, the anterior a rounded spur, the posterior distinctly notched. Embolus of bulb a fine tube, the apical portion resting as a sharp, simple, ventrally-directed conductor, laterad of which is a colorless bulbal lobe. The figure is sufficient to separate this species from the numerous western forms.

TYPE LOCALITY.—Male holotype from Mesa Verde Park, Colorado, taken July 3–7, 1919, on Chapin Mesa at an altitude of 6900–7700 feet by Dr. F. E. Lutz, for whom the species is named.

Arctosa imperiosa, new species

Figure 17

FEMALE.—Total length, 11.30 mm. Carapace, 5.00 mm. long; 3.71 mm. wide. Abdomen, 6.00 mm. long; 3.71 mm. wide.

Cephalothorax with a sparse covering of fine black hairs, the region of the eyes provided with a few black spines. Carapace bright ochraceous orange to dark brown, a median light band beginning at the eye group, strongly expanded behind, and then narrowed irregularly caudally to the width of the third eye row. Sides with a marginal light band abruptly ended at the first coxa, the remainder dark brown. Legs uniform in color, light orange-yellow, sparsely clothed with fine black hairs. Sternum and endites concolorous with the legs, the labium black. Dorsum of abdomen dark brown, basally with a bright hastate median maculation that runs half the length of the abdomen, the sides with irregular light spots.

First row of eyes straight, much broader than the second (39/29), the medians larger and separated by a radius, scarcely as far from the laterals. Eyes of the second row larger than the others, separated by two-thirds of a diameter, much narrower than the posterior eyes (29/33). Last row of eyes practically four diameters apart, the eyes equal to the anterior medians, scarcely one and one-half diameters from the corresponding eyes of the second row.. Dorsal eye quadrangle much broader than long (36/20), greatly narrowed in front. Clypeus about as high as the diameter of an anterior median eye. Lower margin of the furrow of the chelicera with three teeth.

Legs all very stout, clothed with black hairs and heavy spines, all metatarsi with three pairs beneath, tibia I, 0–2–2, tibia II, 1P–1P–2, tibia III, 2–1R–2, and tibia IV, 2–2–2 beneath, the first two tibiae lacking spines above but with a single submedian short robust spine on the last two pairs above.

Tibia and patella I, 4.20 mm. long.

Tibia and patella IV, 4.40 mm. long.

Epigynum as figured.

TYPE LOCALITY.—Female holotype and female and immature paratypes from Colorado Springs, Colorado, July 20, 1908. An immature female of this species apparently comes from Pikes Peak, Colorado, 10,000 feet altitude (Cockerell).